

## **GB834469**

Publication Title:

Improved tape measure

Abstract:

Abstract of GB834469

834,469. Measuring for wearing apparel. SPIRELLA CO. OF GREAT BRITAIN Ltd. April 30, 1958 [April 10, 1957], No. 11796/57. Class 141 A tape measure 10 for taking circumferential measurements of the human figure is provided adjacent one end with an elastic fabric strip 11 stitched at one of its ends 12 to the tape 10 and attached at its free end to a rigid plate 14 having a slot 16 for the passage of the other end 21 of the tape measure. In use, the tape measure is positioned around the body and the end 21 is pulled so that the elastic strip is stretched. The tension applied to the tape is indicated by the position of the zero end 13 of the tape with respect to the transverse lines 17, 18 on the plate 14. The Provisional Specification describes also a device wherein the elastic fabric strip is replaced by a spring. In further modifications the markings indicating the tension are on the elastic strip or the adjacent end of the tape measure or both.

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DRAWINGS ATTACHED.

*Inventors:—IAN WILLIAM TOTT and VICTOR EDWARD EVANS.**Date of filing Complete Specification : April 30, 1958.**Application Date : April 10, 1957. No. 11796/57.**Complete Specification Published : May 11, 1960.*

Index at Acceptance :—Class 141, C1.

International Classification :—A41h.

## COMPLETE SPECIFICATION.

## Improved Tape Measure.

We, THE SPIRELLA COMPANY OF GREAT BRITAIN LIMITED, of Letchworth, Hertfordshire, a British Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to an improved tape measure particularly suitable for use in measuring the human figure.

It is a problem in taking measurements of the figure as a preliminary to the making of fitted garments, to ensure that the tension applied to the tape measure while taking the measurements is always the same, at least when measuring particular parts, and errors can occur even when the tape measure is being used by a skilled and experienced operator, and differences in results also often arise as between one operator and another measuring the same or similar figures.

Furthermore the tension applied to the tape measure when measuring up some parts of the figure may be inappropriate when measuring up other parts of the figure from the point of view of the fit of the ultimate garment made on the basis of such measurements. As an example, it is sometimes the practice to attempt to take measurements for a ladies brassiere with the tape measure under a higher tension than when taking measurements for lower garments about the firmer parts of the body such as the waist line, hips and so on.

It is an object of the present invention to provide a tape measure with which an indication of the degree of tension applied by the user is afforded.

It is a further object of the invention to provide a tape measure with which indica-

tions of a number of alternative degrees of tension are afforded to the user.

In accordance with the present invention a tape measure is provided having an elastic element affixed by one of its ends to a point near one end of the tape measure with the free end of the elastic element terminating at a predetermined distance short of the adjacent end of the tape measure in the unstressed condition of the elastic element, the said free end of the elastic element having a rigid loop connected thereto for the passage of the end of the tape measure remote from the elastic element.

The invention is illustrated by way of example in the accompanying drawings in which:—

Fig. 1 is a front view of a part of the improved tape measure as seen when taking a measurement;

Fig. 2 is a diagrammatic plan view showing the improved measure disposed about a figure being measured and before tensioning the tape measure;

Fig. 3 is a plan view similar to Fig. 2 but with the tape measure tensioned for measuring; and

Fig. 4 is a separate view on a larger scale of the rigid loop to which the free end of the elastic element is attached.

Referring to the drawings 10 represents a flexible tape measure usually comprising a linen strip marked as in the case illustrated in inches and half inches.

A strip of elastic fabric 11 of a width in excess of that of the tape measure 10 is stitched to the tape measure at a point indicated by 12 at a selected distance from one end which will be termed the zero end 13 of the tape measure 10.

To the free end of the elastic strip 11 is

[Price 3s. 6d.]

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attached a rigid loop formed in the case illustrated of a small plate 14 conveniently of synthetic plastic material having two narrow and parallel transverse slots 15 and 16 and bearing two transverse parallel marking lines 17 and 18 spaced from one another by a predetermined distance.

The elastic strip 11 is attached to the plastic plate 14 by passing it through the slot 15, looping it about the adjacent end of the plate 14 as shown at 19 in Figs. 2 and 3 and stitching as shown at 20.

The overall length of the elastic strip 11 and its point of attachment 12 to the tape measure 10 are selected so that the adjacent zero end 13 of the tape measure can extend beyond the end of the elastic strip attached to the plate 14 and to a required extent beyond the marking lines 17 and 18 on the plate 14 with the tape taut and the elastic strip in the flat but unstressed condition as shown in Fig. 2.

In use, the tape measure is passed about the figure to be measured with the plastic plate 14 against the figure, and the free end 21 of the tape measure remote from the elastic strip passed from the inside to the outside through the other slot 16 in the plastic plate 14 as shown in Fig. 2.

Holding the plate 14, the tape measure 10 is now tensioned by pulling the free end 21 through the slot 16 in the plate 14 to stretch the elastic strip 11 until the zero end 13 of the tape measure is caused to register with a selected one of the marking lines 17 or 18 on the plate 14 according to the degree of tension required to be achieved, this in turn being dependent upon the part of the figure being measured, it being understood that where more tension is required the end 13 is made to register with the line 17, and when less tension is required the end 13 is made to register with the line 18.

The elastic strip 11 being wider than the tape measure 10 it is possible to ensure by observation that the elastic strip is flat against the figure.

The required measure of circumferential length can now be read off from the tape 10 at its point of emergence from the slot 16 of the plate 14.

The "reading" taken from the figures on the tape measure will be short of the tube circumferential length by the distance between the zero end 13 of the tape and the point of emergence of the free end 21 from the slot 16 but the extent of the "error"

when using any selected one of the marking lines 17 and 18 is constant so that the true measure is ascertained by making a small addition which is fixed for the particular marking line in use.

It will readily be seen that by achievement of a standard tension, similar measurement readings will be obtained on the same parts of a given figure even by an unskilled operator and furthermore different degrees of tension appropriate to different parts of the figure can be also achieved without the exercise of any skill.

The relevant measurement reading will be from a scale printed on what is the inner side of the part of the tape measure encircling the body and in order to avoid possible error due to twisting of a tape measure printed with indications on both sides, we make use of a tape measure one side of which is wholly or for the main part without dimensional markings.

#### WHAT WE CLAIM IS:—

1. A tape measure having an elastic element affixed by one of its ends to a point near one end of the tape measure with the free end of the elastic element terminating at a predetermined distance short of the adjacent end of the tape measure in the unstressed condition of the elastic element, said free end of the elastic element having a rigid loop connected thereto for the passage of the end of the tape measure remote from the elastic element.

2. A tape measure as claimed in Claim 1 wherein the rigid loop is formed by a member bearing one or more markings which lie between the point of attachment of the elastic element to the tape measure and the adjacent zero end of the tape measure in a taut condition of the tape with the elastic element flat and unstressed, said member having a slot for the passage of the free end of the tape measure.

3. A tape measure as claimed in Claim 2 wherein the rigid member is formed as a stiff plate having two spaced and parallel slots, one for connection of the free end of the elastic element and the other for passage of the free end of the tape measure, and a mark or a number of longitudinally spaced marks between the slots.

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#### PROVISIONAL SPECIFICATION.

##### Improved Tape Measure.

We, THE SPIRELLA COMPANY OF GREAT BRITAIN LIMITED, of Letchworth, Hertfordshire, a British Company, do hereby declare

this invention to be described in the following statement:—

The present invention relates to an im-

proved tape measure particularly suitable for use in measuring the human figure.

It is a problem in the measurement of the figure by means of a tape measure, as a preliminary to the making of fitting garments, to ensure that the tension applied even by a single and experienced operator is the same whilst measuring various parts of the same figure.

Varying measurement results are also obtained by different operators when measuring the same or similar figures with tape measures, due to the variations in tension applied by different operators to the measure and this gives rise to serious difficulties when garments are to be made up without the opportunity of "try-on" fittings from measurements furnished by various operators.

It is the object of the present invention to provide a tape measure with which an indication of the degree of tension applied by the user is afforded.

In accordance with the invention a tape measure is provided having an elastic element affixed thereto at one end, the free end of the elastic element terminating at a predetermined distance short of the same end of the measure in the unstressed condition of the elastic element and having a rigid loop or like device for engagement by the other end of the measure.

The elastic element may be a short length of elastic fabric, a spring or the like sewn, riveted or otherwise fixed at one side of the tape.

When a strip of elastic fabric is used it is preferably of a greater width than the measure so that in use the elastic element may be used between the measure and the body being measured and the elastic element readily observed as well as the risk of the

short end of the measure bearing the zero or datum mark becoming erroneously folded, avoided.

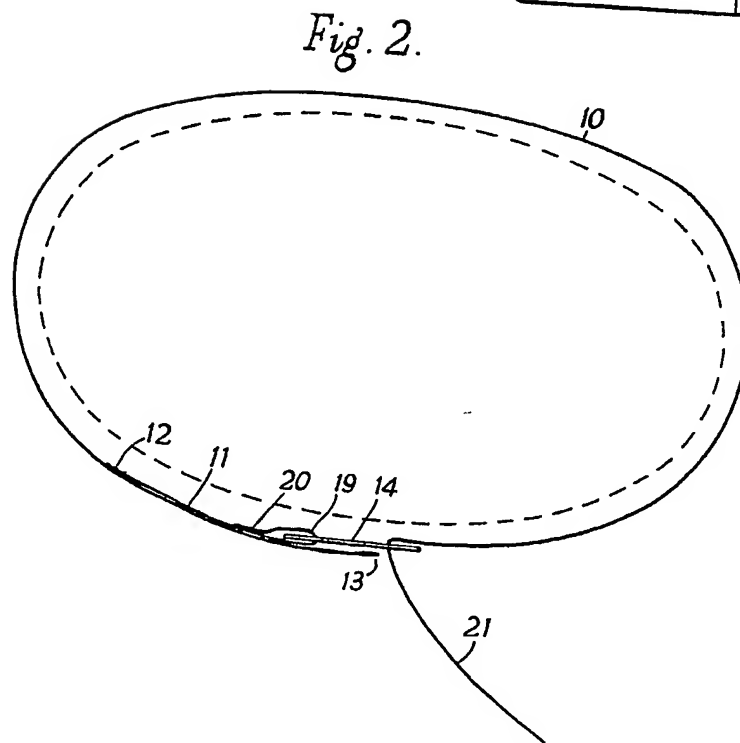
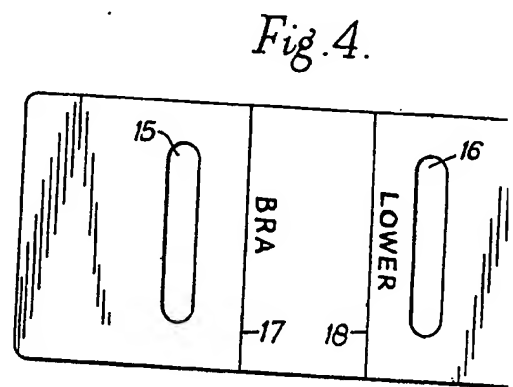
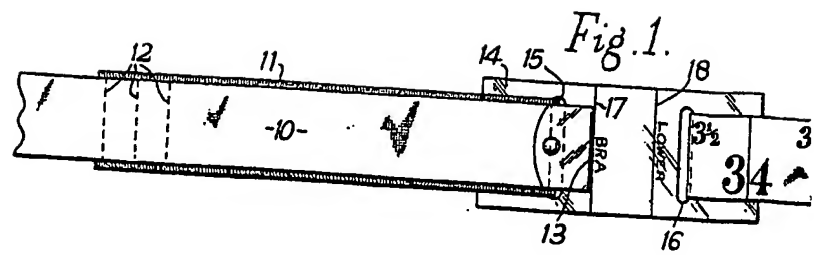
The member at the end of the free end of the elastic strip for engagement by the other end of the measure may be a narrow rigid metal loop extending across the elastic strip and such that the other end of the measure may be threaded through it and the measure looped so that it may be pulled to stretch the elastic strip and adjusted whilst taking the required measurement.

In the simplest form the length and position of fixing of the elastic strip on the measure is such that the measure is appropriately tensioned when the elastic member is stretched to bring the loop on the elastic strip into register with the adjacent end of the measure.

Markings may however be provided on the elastic strip or the end part of the measure adjacent the strip or on both those parts to afford indications when any one of several different degrees of tension have been achieved in drawing the measure about a figure.

Since the relevant measurement reading is taken from the point of looping of the measure in the loop on the elastic element the figures read will be from the scale printed on what is the inner side of the part of the measure encircling the body. It is preferable therefore to employ a tape measure with the scales printed on the two sides starting from one and the same end or alternatively to use a measure with a scale printed on one side only.

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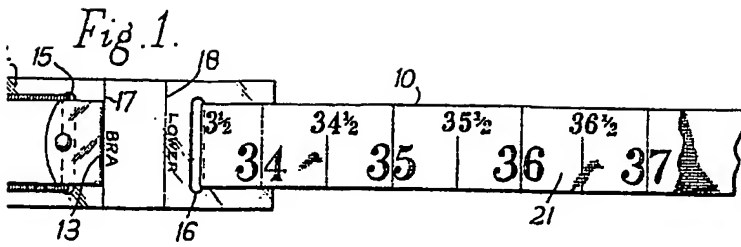


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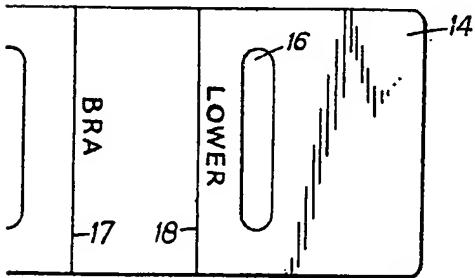
COMPLETE SPECIFICATION

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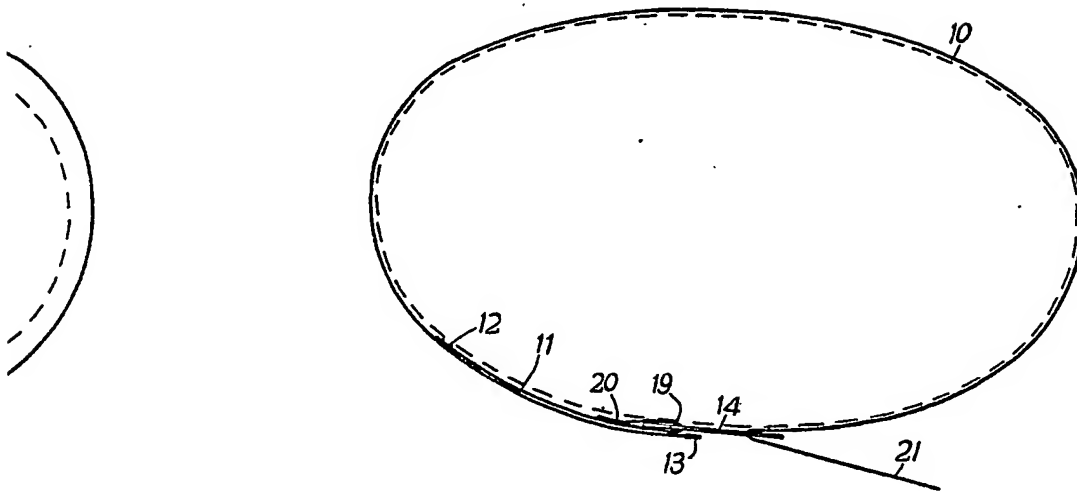
This drawing is a reproduction of the Original on a reduced scale.



*Fig. 4.*



*Fig. 3.*



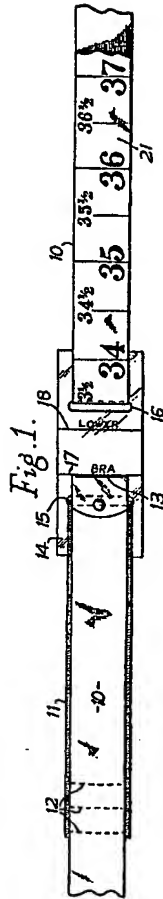


Fig. 4.

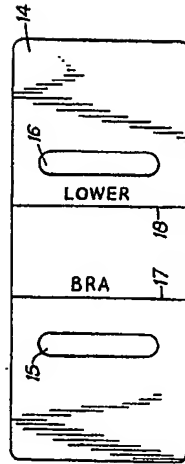


Fig. 2.

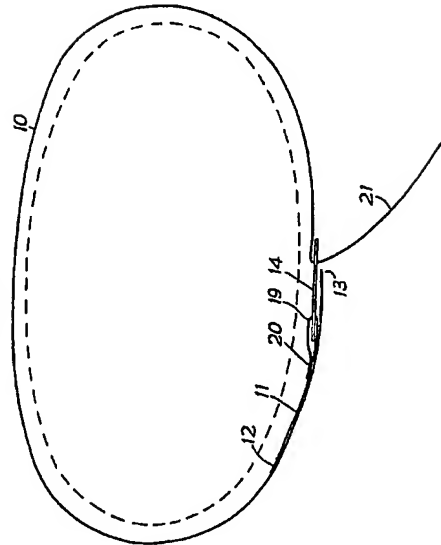


Fig. 3.

